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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GOOD JOHNSON, MOTILEWA

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 09/25/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/539,343

Applicant(s)

MACRI ET AL.

Examiner

Motilewa A. Good-Johnson

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,13-20 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-11,13-20 and 22-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This office action is responsive to the following communications: Application, filed on 03/31/2000; Preliminary Amendment A, filed on 10/18/2000; Amendment B, filed 10/29/2002; Supplemental Amendment C, filed 12/02/2002; Amendment D, filed 04/07/2003; Amendment E, filed 06/30/2003.

This action is made final.

2. Claims 1, 3-11, 13-20 and 22-30 are pending in this application. Claims 1, 9, 11, 18, 20, 27 and 29 are independent claims. Claims 1, 6, 9, 11, 16, 18, 20, 23, 27 and 29 were previously amended. Claims 2, 12 and 21 have been canceled.

3. The present title of the application is "Trimming Surfaces" (as originally filed).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-11, 13-20 and 22-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Fiasconaro, U.S. Patent Number 5,299,302, "Method and Apparatus for Trimming B-Spline Descriptions of Patches in a High Performance Three Dimensional Graphics System, class 345/442, 03/29/1994.

As per independent claim 1, a method of trimming a parametric surface, comprising: producing a trimming texture by applying a trimming curve to a mesh; (Fiasconaro discloses a trimming curve mapped, i.e. applies, into patches and creating a mapped trimming curve, col. 8, lines 1-4) and applying the trimming texture to the parametric surface, the trimming texture being applied by texture mapping the trimming texture onto the parametric surface to produce trimmed and untrimmed portions; (Fiasconaro discloses patch generation for untrimmed patches produced from trimming curves, col. 1, line 56 – col. 2, line 68) and rendering only the untrimmed portion. (Fiasconaro discloses generating untrimmed polygons, col. 7, lines 1-4)

With respect to dependent claim 3, drawing a plurality of pixels only in a solid portion of the image that is not a trimmed portion. (Fiasconaro discloses the rendering of a patch having a subtracted portion and not displaying the portion inside the trimming curve, col. 6, lines 1-18)

With respect to dependent claim 4, a first portion comprising a rendered section of the parametric surface; and a second portion comprising a trimmed section of the parametric surface. (Fiasconaro discloses in figure 4)

With respect to dependent claim 5, drawing a plurality of pixels based on an allocation of the trimming texture relative to the parametric surface. (Fiasconaro discloses in figure 6)

With respect to dependent claim 6, producing is performed in a pre-rendering process and applying is performed in a run-time process. (Fiasconaro discloses the generating of the patches is carries out one at a time and that the user may select the

step size, col. 7, lines 5-27, therefore making it inherent that the application of the mapped trimmed curve is performed at run time.)

With respect to dependent claim 7, obtaining a material texture; drawing the material texture on the parametric surface based on the trimming texture. (Fiasconaro discloses that in an users desired surface removing a hole with a material to be removed to produce a hole, col. 6, line 65 – col. 6, line 18)

With respect to dependent claim 8, obtaining the trimming texture from a plurality of trimming curves for the parametric surface. (Fiasconaro discloses the trimming method is compatible to handle patches with a high number of trimming curves, col. 2, lines 20-25)

As per independent claim 9, it is rejected based upon similar rational as above dependent claim 2.

With respect to dependent claim 10, it is rejected based upon similar rational as above dependent claim 7.

As per independent claim 11, “an article comprising a computer-readable medium . . .”, it is rejected based upon similar rational as above independent claim 1.

With respect to dependent claims 13-17 they are rejected based upon similar rational as above dependent claims 3-5, 7 and 8 respectively.

As per independent claim 18, “an article comprising a computer-readable medium . . .”, it is rejected based upon similar rational as above independent claim 9.

With respect to dependent claim 19, it is rejected based upon similar rational as above dependent claim 10.

As per independent claim 20, "an apparatus for use in trimming . . .", it is rejected based upon similar rational as above independent claim 1.

With respect to dependent claims 22-26 they are rejected based upon similar rational as above dependent claims 3-5, 7 and 8 respectively.

As per independent claim 27, "an apparatus . . .", it is rejected based upon similar rational as above independent claim 9.

With respect to dependent claim 28, it is rejected based upon similar rational as above dependent claim 10.

As per independent claim 29 and dependent claim 30, they are rejected based upon similar rational as above independent claim 1 and dependent claim 5.

Response to Arguments

6. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is (703) 305-3939. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

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Motilewa A. Good-Johnson
Examiner
Art Unit 2672

mgj
September 15, 2003



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600